

AMENDMENTS TO THE SPECIFICATION:

Changes in the following text from its immediate prior version are shown with ~~strikethrough~~ or [[double brackets]] for deleted matter and underlines for added information.

Please amend the paragraph on page 1, lines 15 to 24, as follows:

Spring operated relief valves are used to protect pressurized systems ~~form~~ from pressures that exceed their maximum allowable working pressure or any pressures that the user specifies. Most spring operated relief valves use an externally adjustable coil springs that, when compressed, applies the force to keep the valve closed. The spring, which is externally adjustable by the means of a threaded adjustment screw, can be set to allow the valves to operate at a wide range of pressures. The pressure that an individual valve is set to open at is called the *set pressure*. When this set pressure is reached the valves opens and relieves the excess pressure. The valve then closes when the system pressure has dropped to a reduced level.

Please amend the paragraph on page 2, lines 20 to 29, as follows:

Existing low ~~blown-down~~ blow-down snap-type safety relief valves do, however, have some problems. One problem is that the blow-down values of the valves are affected by built-up downstream back pressures. The term "built-up downstream back pressures" is well understood in the art and documented in the American Petroleum Institute Recommended Practice 520. The length of outlet piping and the number of elbows that are attached to the outlet of the snap-type safety relief valves contributes to built-up downstream back pressures. Generally, the longer the outlet piping and the greater the number of elbows in the outlet piping, the more built-up downstream back pressure is are created.

Please amend the paragraph on page 14, lines 25 to 32, as follows:

When the disk member 28 is lifted from the inlet valve seat 26, gas escapes from the inlet nozzle 25 into the chamber 20. The gas escapes into the chamber 20 at

sonic flow, which is the fastest that the gas can escape into valves made with a standard nozzle. The pressure in the chamber 20 is less than about 50% of the pressure in the inlet chamber 16. Even if the pressure in chamber 20 is much less than about 50% of the pressure in the pressure vessel or flow line (say, 30%), the pressure drop from the inlet chamber 16 to the throat of the inlet nozzle 25 will stay at about 50%.

Please amend the paragraph on page 15, lines 1 to 7, as follows:

The term "~~about 50%~~ "about 50%"" is used because the critical pressure ratio for most gases used is fairly close to 50%. For example, the critical pressure ratios for air, nitrogen, and oxygen are all 52.8%, the critical pressure ratio for natural gas is 55.1%, and the critical pressure ratio for propane is 57.6%. Thus, one of skill in the art should understand that the term "about 50%" is meant to reflect the critical pressure ratio for the gas used in a particular installation of a snap-type safety relief valve 10.

Please amend the paragraph on page 23, lines 7 to 13, as follows:

FIGURE 9 illustrates another preferred embodiment of the invention which utilizes a standard wire wound spring 738. A washer 743 is stacked on the end of spring 743 and engages a short stack of Belleville washers 742, which are ~~arraigned~~ arranged as shown. These Belleville washers effectively reduce the rate tolerance of +7%, which would be the case if no Belleville washers were used, to a rate tolerance of +2%. The following discussion will illustrate design of this method.